

Arkansas Department of Education

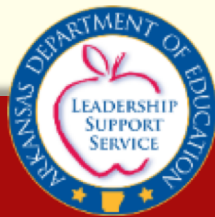
Academic Shortage Areas for 2020-2021



DIVISION OF ELEMENTARY
& SECONDARY EDUCATION

Arkansas Academic Shortage Areas

- Each year the US Dept. of Education (USDOE) asks states to identify teacher Academic Shortage Areas.
- These Shortage Areas are considered to be areas of need in public schools.
- Teachers who prepare for, and license in Shortage Areas may be eligible for financial incentives.
 - In accordance with the USDOE request, teachers may receive financial benefits (such as loan forgiveness) within the regulations of the [Stafford Loan](#) Program, the Federal [Perkins Loan](#) Program and/or the [TEACH Grant](#) Program.



Academic Financial Opportunities

- Potential educators or current teachers wishing to license in Academic Shortage Areas may contact the Arkansas Department of Higher Education (ADHE) by phone at 501-371-2000 or by email at finaid@adhe.edu for information on student loan grants or loan forgiveness that may be associated with these educator license areas.
- Information may also be found on the ADHE Financial Aid website at <https://scholarships.adhe.edu/>



Arkansas Academic Shortage Areas

In December 2019, the ADE Division of Elementary and Secondary Education designated the following as Academic Shortage Areas for the 2020-2021 school year*.

Art (K-12)

Business (4-12)

Biology (7-12)

Chemistry (7-12)

French (K-12)

Mathematics (7-12)

Physics (7-12)

Special Education (K-12)

* Pursuant to A.C.A. § 6-81-601 et seq. and A.C.A. § 6-85-109.



Arkansas' Academic Shortage Areas

The ADE uses a Supply and Demand formula, incorporating the following factors, to establish Shortage Areas.

- Supply (potential incoming teachers / pipeline):
 - The numbers of candidates in Arkansas educator preparation programs (preparing for teacher licenses).
 - The numbers of first-time licenses issued to Arkansas teachers.
- Demand (need for teachers):
 - The numbers of classes being taught by long-term subs or teachers out of area (on waivers).
 - The retirement or potential retirement of teachers in each license area (based on age and years invested to retirement).



Calculation Definitions

		Preparing for the workforce		Potential new hires		Immediate need Vacancies, Subs		Immediate need Waivers		Potential need, near future		
	# of Teachers in Area (TIA)	Preparing for the license	Preparing as % of TIA, score	First-time licensed in area	FTL as % of TIA, score	# V/S	V/S as % of TIA, score	# ALPs	ALPs as % of TIA, score	# who are Veteran	Veterans as % of TIA, score	Total Score
Example Subj. Area	77	4	5.19	2	2.60	1	1.30	2	2.60	10	12.99	79

- **Preparing** – Those preparing to be licensed in the area (i.e., enrolled in educator preparation programs).
- **Potential New Hires** – Those who received their first license in the license area.
- **Vacancies/Subs** – Those classes taught by long-term substitute teachers.
- **Waivers** – Those classes taught by teachers teaching out of their area of licensure (ALPs).
- **Potential Need (Veterans)** – The number who retired the previous year or are expected to retire in the near future.



Calculation Definitions, cont'd

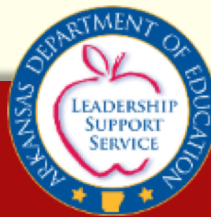
- According to Arkansas Teacher Retirement System:
 - The average age of retirees is 61.
 - The average years towards retirement is 23.
- For these calculations therefore, a Veteran is defined as:
 - $61 + 23 = 84$
 - One who retired in the prior year, or one whose **age plus years towards retirement** equals **84** or greater.



Shortage Area Score Criteria

		Preparing for the workforce		Potential new hires		Immediate need Vacancies, Subs		Immediate need Waivers		Potential need, near future		Total Score
	# of Teachers in Area (TIA)	Preparing for the license	Preparing as % of TIA, score	First-time licensed in area	FTL as % of TIA, score	# V/S	V/S as % of TIA, score	# ALPs	ALPs as % of TIA, score	# who are Veteran	Veterans as % of TIA, score	
Example Subj. Area	77	4	5.19	2	2.60	1	1.30	2	2.60	10	12.99	79

- The number of teachers in each area (TIA) was the basis for calculations.
- Each score was arrived at by the number in each factor calculated as % of TIA.
- Factors were given a score accordingly (5.19% = 5.19 points).
 - The score for Vacancies/Subs was weighted by a factor of 10.
- **Positive factors** (# preparing and # of first-time licensed) were **added to** a standard of 100.
- **Negative factors** (Vacancies, Waivers, Veterans) were **subtracted from** the standard.
- **Total scores less than 100 indicated the need was greater than the supply.**
 - **These were identified as Shortage Areas.**



Supply and Demand Table (Dec. 2019 for 20-21)

Area	# of Teachers in Area (TIA)	Preparing			Potential New Hires			Long-term Subs			Teachers Out-of-Field (ALPs)			Potential for Need			Total Score
		Preparing for the license	Preparing as % of TIA	Preparing Score	First-time licenses	FTL as % of TIA	FTL Score	# People LTS	LTS as % of TIA	LTS Score	# ALPs	ALPs as % of TIA	ALP Score	# who are Veterans	Veterans as % of TIA	Veteran Score	
Special Education	3,082	1,186	38.48%	38.48	488	15.83%	15.83	127	4.12%	41.21	410	13.30%	13.30	310	10.06%	10.06	90
Mathematics	2,475	134	5.41%	5.41	113	4.57%	4.57	27	1.09%	10.91	43	1.74%	1.74	183	7.39%	7.39	90
Art	1,255	100	7.97%	7.97	100	7.97%	7.97	20	1.59%	15.94	12	0.96%	0.96	104	8.29%	8.29	91
French	129	5	3.88%	3.88	7	5.43%	5.43	1	0.78%	7.75	0	0.00%	0.00	13	10.08%	10.08	91
Chemistry	1,906	36	1.89%	1.89	49	2.57%	2.57	4	0.21%	2.10	30	1.57%	1.57	154	8.08%	8.08	93
Physics	1,797	24	1.34%	1.34	30	1.67%	1.67	1	0.06%	0.56	16	0.89%	0.89	150	8.35%	8.35	93
Business	1,775	77	4.34%	4.34	162	9.13%	9.13	12	0.68%	6.76	14	0.79%	0.79	176	9.92%	9.92	96
Life Science (Biology)	1,657	113	6.82%	6.82	137	8.27%	8.27	12	0.72%	7.24	7	0.42%	0.42	144	8.69%	8.69	99
Library	947	159	16.79%	16.79	103	10.88%	10.88	4	0.42%	4.22	45	4.75%	4.75	164	17.32%	17.32	101
Social Studies	2,409	232	9.63%	9.63	197	8.18%	8.18	13	0.54%	5.40	30	1.25%	1.25	210	8.72%	8.72	102
English / Lang. Arts	2,676	236	8.82%	8.82	227	8.48%	8.48	18	0.67%	6.73	12	0.45%	0.45	177	6.61%	6.61	104
Physical Ed / Health	3,678	280	7.61%	7.61	316	8.59%	8.59	13	0.35%	3.53	26	0.71%	0.71	306	8.32%	8.32	104
Spanish	420	29	6.90%	6.90	27	6.43%	6.43	1	0.24%	2.38	4	0.95%	0.95	20	4.76%	4.76	105
Middle Childhood - Eng	5,725	241	4.21%	4.21	307	5.36%	5.36	11	0.19%	1.92	36	0.63%	0.63	99	1.73%	1.73	105
Fam & Consumer Science	645	55	8.53%	8.53	61	9.46%	9.46	1	0.16%	1.55	4	0.62%	0.62	66	10.23%	10.23	106
Elementary Education	14,303	1,354	9.47%	9.47	968	6.77%	6.77	34	0.24%	2.38	54	0.38%	0.38	1,069	7.47%	7.47	106
Agriculture	362	35	9.67%	9.67	36	9.94%	9.94	1	0.28%	2.76	5	1.38%	1.38	33	9.12%	9.12	106
Drama/Speech	731	68	9.30%	9.30	82	11.22%	11.22	3	0.41%	4.10	25	3.42%	3.42	47	6.43%	6.43	107
Middle Childhood - Math	4,965	231	4.65%	4.65	316	6.36%	6.36	8	0.16%	1.61	17	0.34%	0.34	88	1.77%	1.77	107
Music	1,426	226	15.85%	15.85	142	9.96%	9.96	14	0.98%	9.82	5	0.35%	0.35	116	8.13%	8.13	108
Middle Childhood - Soc St	4,358	226	5.19%	5.19	330	7.57%	7.57	5	0.11%	1.15	42	0.96%	0.96	91	2.09%	2.09	109
Middle Childhood - Sci	3,651	190	5.20%	5.20	317	8.68%	8.68	6	0.16%	1.64	29	0.79%	0.79	68	1.86%	1.86	110
Computer Science	256	16	6.25%	6.25	65	25.39%	25.39	0	0.00%	0.00	10	3.91%	3.91	12	4.69%	4.69	123
Counseling	1,324	481	36.33%	36.33	161	12.16%	12.16	2	0.15%	1.51	60	4.53%	4.53	196	14.80%	14.80	128
Gifted - Talented	412	274	66.50%	66.50	59	14.32%	14.32	8	1.94%	19.42	59	14.32%	14.32	60	14.56%	14.56	133
Ind. Tech.***	87	35	40.23%	40.23	45	51.72%	51.72	2	2.30%	22.99	1	1.15%	1.15	8	9.20%	9.20	159
Marketing **	288	97	33.68%	33.68	172	59.72%	59.72	1	0.35%	3.47	0	0.00%	0.00	30	10.42%	10.42	180
Journalism *	467	236	50.54%	50.54	236	50.54%	50.54	2	0.43%	4.28	1	0.21%	0.21	44	9.42%	9.42	187

* = Includes English in "Preparing" and "FTL"

** = Includes Business in "Preparing" and "FTL"

***= Includes Agriculture in "Preparing" and "FTL"



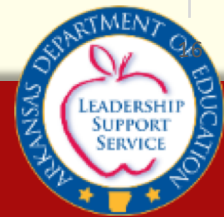
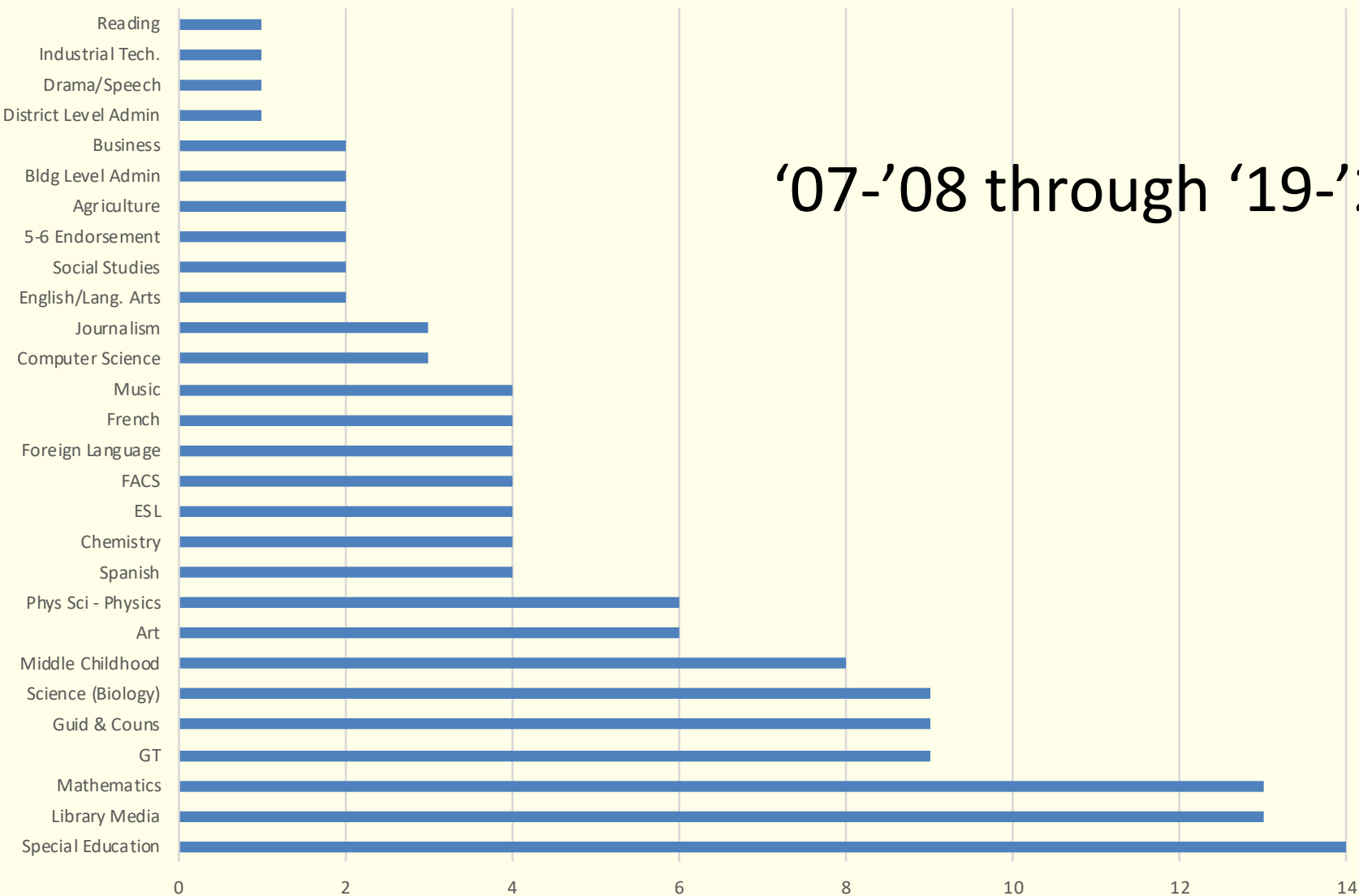
Arkansas Shortage Area Table (Dec. 2019 for 20-21)

Area	# of Teachers in Area (TIA)	Preparing			Potential New Hires			Long-term Subs			Teachers Out-of-Field (ALPs)			Potential for Need			Total Score
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Frequency of License Areas as Shortage Areas

'07-'08 through '19-'20

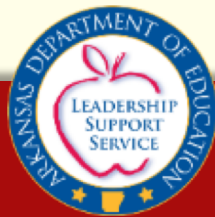


Veteran status of Educators **per License Area**

Approximately 10% of Arkansas' entire educator workforce fits the 'Veteran' definition. Below are the current percentages in each area.

Library	17.32%
Counseling	14.80%
Gifted - Talented	14.56%
Marketing	10.42%
Family & Consumer Science	10.23%
French	10.08%
Special Education	10.06%
Business	9.92%
Journalism	9.42%
Industrial Technology	9.20%
Agriculture	9.12%
Social Studies	8.72%
Life Science (Biology)	8.69%
Physics	8.35%

Physical Education / Health	8.32%
Art	8.29%
Music	8.13%
Chemistry	8.08%
Elementary Education	7.47%
Mathematics	7.39%
English / Language Arts	6.61%
Drama/Speech	6.43%
Spanish	4.76%
Computer Science	4.69%
Middle Childhood – Soc Studies	2.09%
Middle Childhood - Science	1.86%
Middle Childhood - Math	1.77%
Middle Childhood - English	1.73%



Numbers of Educators vs Positions

	Shortage Areas	Non-Shortage Areas
<u>Potential Educators Available</u> Sum of those preparing plus newly licensed	2,761	8,868
<u>Potential Positions Available</u> Sum of Vacancies, Waivers and Veterans	1,970	3,516
<u>Ratio Persons to Positions</u>	1.4 to 1	2.5 to 1

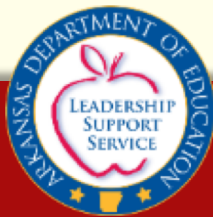
There are roughly half as many educators available (per position) in shortage areas as there are in non-shortage areas (a ratio of 1.4 to 1 **vs** 2.5 to 1).

NOTE: Not all potential educators become educators.



The ADE is working diligently to address shortage areas and ensure that the Demand is met with a sufficient Supply of qualified and effective educators. Systems currently in place include:

- Teacher Cadet Programs
- Alternative Licensure Pathways (including APPEL)
 - Emphasis on recruiting candidates with degrees in shortage areas
- Recruitment & Retention personnel in each Co-op



Recruitment & Retention Contact Information

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